Material fatigue is a phenomenon where structures fail when subjected to a cyclic load. This type of structural damage occurs even when the experienced stress range is far below the static material strength. Fatigue is the most common source behind failures of mechanical structures. Under the influence of a nonconstant external load, the state in the material also varies with time. The state at a point in the material can be described by many different variables such as stress, strain, or energy dissipation. The goal of this special issue is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in the area of material microstructure, properties and applications.

In this special issue, we intend to invite front-line researchers and authors to submit original research and review articles on exploring material microstructure, properties and applications. Potential topics include, but are not limited to:

- Mechanics of fatigue and fracture
- Reliability and effectiveness of structural components of material
- Material failure and protection
- Fatigue properties of materials
- The material microstructure
- Fatigue variables
- The material's microstructure and its application

Authors should read over the journal’s For Authors carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the journal’s Paper Submission System.

Please kindly specify the “Special Issue” under your manuscript title. The research field “Special Issue - Material Microstructure, Properties and Applications” should be selected during your submission.

Special Issue Timetable:

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Guest Editor:
For further questions or inquiries, please contact Editorial Assistant at msa@scirp.org.